

IRTS Radio News Bulletin Sunday 10 April 2022

IRTS AGM

A detailed report about this weekend's IRTS AGM will be published in next week's Radio News Bulletin. This week's news is a bit sparse due to travel commitments and time spent by many active Hams preparing for the AGM, hosted by the South Eastern Amateur Radio Group. However, we can already report that the gathering at the Woodford Dolmen Hotel is well attended by YLs and OM's from Ireland and the UK. Up to sixty hams enjoyed the afternoon presentations, each followed by lively question and answer sessions. We then enjoyed a tasty evening dinner at the hotel's Barrow Suite, followed by the presentation of trophies and plaques, rounded off by a special present to Megan, EI5LA.

World Amateur Radio Day

Every April 18th, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. On this day in 1925 the International Amateur Radio Union was formed in Paris, with members from 25 countries, growing to 160 member societies today. The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of Amateur Radio, now organized in three IARU regions, representing over three million license holders. Thanks to the work of pioneering Amateur Radio experimenters in the early years of last century it was discovered that ionospheric propagation on shortwave allowed signals to travel much greater distances than the lower frequencies then used by telephone companies and broadcasters. In order to prevent Amateur Radio to be being pushed aside by commercial and national interests, Amateur Radio pioneers met in Paris in 1925 and founded the IARU. That ensured that at the 1927 International Radiotelegraph Conference Amateur Radio secured the frequency allocations in the 160, 80, 40, 20, and 10 meter bands.

The Irish Net

Active not only on Sundays, but most weekdays starting at around 1600 UTC, the informal gathering on 14.156 MHz frequently suffers from QRM during contests and DXers unaware of this long standing net of North American operators with an Irish connection. In a recent QSO on 20m with WI1IDP, QTH Tuscon Arizona, operator Jerry confirmed that the net now also uses the 17m QRG at 18.114 MHz, avoiding the

increased QRM on 20m and taking advantage of improved propagation conditions.

40 MHz use in the UK

The RSGB has consulted Ofcom regarding the status of the so-called "Innovation and Trial" licences, covering not only 40-42 Mhz, but also frequencies around 70 and 146 MHz. It permits me to use 40-42MHz with digital modes (including CW) at 5W ERP max. Applicants for these licenses are not required to have passed an amateur exam or hold a call-sign. These "Research and Innovation" permits are issued for up to 12 months on a non-interference, no protection and non-operational basis. Ofcom reiterated that there is no likelihood of UK Radio Amateurs gaining an allocation in the 40 MHz band any time soon. However, a small number of UK hams experimenting on the 8m band using this type of license. There is a detailed review of these activities on the website of John, EI7GL at ei7gl.blogspot.com . John's website has become the authoritative source of thoroughly researched and well presented information about activities and experiments above 30MHz for serious VHF/UHF/SHF DXers and experimenters. Have a look at www.ei7gl.blogspot.com

Amsat AO7

The Methuselah of Amateur Radio Satellites AMSAT-OSCAR 7 was launched on the 15th of November 1974 from Vandenberg Air Force Base. The spacecraft is solar powered, weighs just under 29 kg, and had a three-year anticipated lifetime at the time it was launched, but it has far outlived this expectation. Its beacons transmit on 29.502, 145.975, 435.10 and 2304.1 MHz. Two types of communications repeaters are aboard the spacecraft, only one of which operates at a time. The first repeater is a two watt non-inverting transponder receiving uplink signals between 145.85 and 145.95 MHz, and re-transmits them between 29.4 and 29.5 MHz on the downlink. Approximately -100 dBm is required at the repeater input terminals for an output of 1 watt. This corresponds to an EIRP from the ground of 90 watts for a distance to the satellite of 3200 km and a polarization mismatch of 3 dB. The second repeater is a 40-kHz* bandwidth inverting linear repeater. It employs an 8-watt PEP power amplifier with a wide dynamic range. This repeater has an uplink from 432.125 to 432.175 MHz, and a downlink from 145.975 to 145.925 MHz. Approximately 50 watts EIRP is required to produce 3 watts of repeater output at a range of 3200 km assuming a polarization mismatch of 3 db. All seemed lost in mid 1981 due to battery failure. In 2002 one of the shorted batteries became an open circuit and now the spacecraft is able to run off just the solar panels, it is not usable in eclipse and may not be able to supply enough power to the transmitter to keep from frequency modulating the signal. When continuously illuminated, the mode will alternate between A and B every 24

hours. Proving that the satellite is still alive and well after 48 years of service, a new distance record has been posted to AMSAT. Joel, VE6WQ, based in Edmonton, Alberta worked Jérôme, F4DXV, who describes himself as a "Extreme low elevation contact enthusiast" based in the southwest of France on the 23rd of March 2022. They used Mode A, uplinking on 2m and downlinking on 10m, over a distance of 7454 km. If anyone has any information about extreme distance QSOs on AO-7 Mode A, please contact n8hm /at/ amsat.org .

The Propagation Horoscope

The weekly horoscope for propagation predictions and related topics takes a break this week, but not without recommending a visit to the weekly presentation of the propagation analysis by Dr. Tamitha Skov. Her well explained insights are mandated viewing for anyone paying attention to the space weather. Have a look at her website at www.spaceweatherwoman.com .

That is the news for this week. Items for inclusion in next week's radio news can be submitted by email to newsteam /at/ irts.ie for automatic forwarding to both the radio and printed news services. The deadline is midnight on Friday.

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